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I. General Remarks Concerning This Response

Claims 1-25 are currently pending in the present application. No claims have been amended, added, or canceled. Reconsideration of the claims is requested.

5 It should be noted that the Office action states (both in section 6 and on the PTO-326 Office Action Summary form) that claims 10-25 are allowable. However, the Office action also includes a rejection of claims 1, 6-10, 17, 18, and 20-25 under double patenting. Thus, it is unclear whether claims 10, 17, 18,
10 and 20-25 are allowed or rejected. Applicant argues against the double patenting rejection and assumes that the claims are rejected.

II. Summary of Present Invention

15 A method of enabling a proxy to participate in a secure communication between a client and a server. The method begins by establishing a first secure session between the client and the proxy. Upon verifying the first secure session, the method continues by establishing a second secure session between the
20 client and the proxy. In the second secure session, the client requests the proxy to act as a conduit to the server. Thereafter, the client and the server negotiate a session master secret. Using the first secure session, this session master secret is then provided by the client to the proxy to enable the
25 proxy to participate in secure communications between the client and the server. After receiving the session master secret, the proxy generates cryptographic information that enables it to provide a given service (e.g., transcoding, monitoring, encryption/decryption, caching, or the like) on the client's
30 behalf and without the server's knowledge or participation. The first secure session is maintained between the client and the proxy during such communications.

III. 35 U.S.C. § 101-Double Patenting

The Office action has rejected claims 1, 6-10, 17, 18, and 20-25 of the present patent application in an obviousness-type double patenting rejection over claims 1, 6-10, 17, 18, and 20-25 of Bellwood et al., U.S. Patent Number 6,584,567 B1, issued 06/24/2003, which is also assigned to IBM and has a common co-inventor with the present application. As an initial issue, Applicant notes that the citation of the same claim numbers in the patent cannot be correct. In any case, this rejection is respectfully traversed.

MPEP § 804 states the following:

Since the analysis employed in an obviousness-type double patenting determination parallels the guidelines for a 35 U.S.C. 103(a) rejection, the factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103 are employed when making an obviousness-type double patenting analysis.

Any obviousness-type double patenting rejection should make clear:

(A) The differences between the inventions defined by the conflicting claims -- a claim in the patent compared to a claim in the application; and

(B) The reasons why a person of ordinary skill in the art would conclude that the invention defined in the claim in issue is an obvious variation of the invention defined in a claim in the patent.

The claims in the present patent application and the issued patent clearly differ from each other. As is apparent by a comparison of the claims in the present application and the issued patent, all of the independent claims in the issued patent contain additional subject matter concerning the use of the proxy between the client and multiple servers; this additional feature is not present in any of the independent claims nor dependent claims of the present application. However, the Office action merely points to Bellwood et al. without providing any argument about the differences between the present application and the

issued patent. More importantly, the rejection does not provide the reasons why a person of ordinary skill in the art would conclude that the invention defined in the claim in issue is an obvious variation of the invention defined in a claim in the patent, as is required by a proper obviousness-type double patenting rejection. The onus is on the Patent Office for explaining the reasoning behind the rejection; without any reasoning against which to argue, Applicant cannot provide any arguments against the hypothetical reasoning. Applicant requests the withdrawal of the double patenting rejection.

IV. 35 U.S.C. § 103(a)-Obviousness-Vu in view of Raivisto

The Office action has rejected claim 1 (and possibly 6-9) under 35 U.S.C. § 103(a) as unpatentable over Vu, "Apparatus and method for providing a secure gateway for communication and data exchanges between networks", U.S. Patent No. 5,623,601, filed 11/21/1994, issued 04/22/1997, in view of Raivisto, "Method of implementing connection security in a wireless network", U.S. Patent Number 6,081,601, filed 01/27/1998, issued 06/27/2000. This rejection is respectfully traversed.

The Office action contains a statement of the grounds of rejection for claim 1 and only claim 1 on page 2 of the Office action. The rejection of claim 1 continues onto page 3. However, on pages 3 and 4, the Office action appears to argue that claims 6-9 are also rejected, supposedly in view of Vu and Raivisto. However, claims 6-9 are not recited within the grounds of the rejection. It is assumed that claims 6-9 are also rejected under the obviousness rejection that includes claim 1.

The rejection of claims 6-9 merely points out the fact that Vu discloses various network protocols, such as SSL, or a pervasive network client. Because claims 6-9 depend from claim 1, the rejection of claims 6-9 also includes the deficiencies of the rejection of claim 1, as argued hereinbelow.

The beginning of the rejection of independent claim 1 states:

As per claim 1, Vu discloses establishing a first secure connection between the client and the proxy (gateway station 14). Vu discloses that upon verifying the first secure session, establishing a second secure session between the client and the proxy (gateway station 14), the second secure session requesting the proxy to act as a conduit to the server [column 8 lines 54-64].

Vu does not teach having the client and the server negotiate a session master secret and delivering the session master secret to the proxy using the first secure session to enable the proxy to participate in the secure communication [column 4 line 54 to column 5 line 14].

Vu clearly does not disclose some of the claimed features of the present invention, notwithstanding the arguments presented by the rejection. The portion of Vu that is cited by the rejection but not applied against the claims (column 4, line 54 to column 5, line 14) appears to have been mentioned merely for support of the fact that Vu provides some disclosure of a secure communication. The portion of Vu that is cited by the rejection and applied against the claims, column 8, lines 54-64, reads as follows:

As will be explained below in detail, the process then authenticates the client's authorization to access the requested service and if the client 16 is determined to have the required authorization, the gateway station 14 initiates a second communication process 19 with the remote host 46 in which the gateway station 14 simulates the client 16 without revealing the client address. Once the two communication sessions 17, 19 are operative, communication is effected between the client 16 and the host 46 by passing communication data between the two interdependent communication sessions.

According to the rejection, the gateway in Vu is analogous to the proxy in the present application. The rejection states that Vu discloses at col. 8, lines 54-64, that there are two communication sessions between the client and the gateway, but Vu does not disclose this. Vu discloses two communication sessions: one between the host server and the gateway and the other session

between the gateway and the client. The cited portion of Vu refers to FIG. 4, which clearly shows a communication session (element 17) between the client (16) and the gateway/proxy (14) and a communication session (19) between the gateway/proxy (14) and external entities which route the data to the host (46).

Thus, in Vu, the gateway acts as an intermediary between the host and the client, and the client and the gateway communicate only through one communication session, whereas in the present invention, the client and the proxy communicate through two communication sessions. Independent claim 1 reads in its entirety:

1. A method of enabling a proxy to participate in a secure communication between a client and a server, comprising the step of:

establishing a first secure session between the client and the proxy;

upon verifying the first secure session, establishing a second secure session between the client and the proxy, the second secure session requesting the proxy to act as a conduit to the server;

having the client and the server negotiate a session master secret; and

delivering the session master secret to the proxy using the first secure session to enable the proxy to participate in the secure communication.

In the present application, after establishing a first communication session between the client and the proxy, the client then establishes a second communication session between the client and the proxy. The second communication session is established through the proxy such that the proxy acts as a conduit or tunnel. For this second communication session, the proxy merely transfers the content between the client and the server, and the proxy does not actively process the content, such as transcoding the content or some other function. After the client obtains a session master secret from the server through the second communication session, the client transfers the session master secret to the proxy using the first communication

session, after which the client communicates with the server through the first communication session. The proxy and the client maintain the first secure session, and the server is unaware that it is communicating with the proxy using the session master secret rather than the client; in a typical, prior art case, the server would communicate directly with the client using the session master secret. With the present invention, the proxy performs its active processing, such as transcoding content, with the message traffic through the first communication session. In addition, the entire communication channel remains secure with the server unaware that the proxy is acting as an intermediary between the client and the server.

Hence, the rejection of claim 1 contains a fundamental flaw in that it argues that Vu discloses two communications sessions between the proxy (gateway station in Vu) and the client, but this is incorrect. The rejection then proceeds to rely on Raivisto to remedy another deficiency in Vu with respect to the secure characteristic of the communication sessions in claim 1. However, Raivisto clearly discloses a similar arrangement of communication elements.

Moreover, the rejection does not provide any argument as to the manner in which Raivisto discloses any elements of the present invention. The rejection states on p. 3, paragraph 1:

Raivisto teaches a client and a server negotiate a session master secret and delivering the session master secret to the proxy using the first secure session to enable the proxy to participate.

In other words, the rejection merely states that Raivisto discloses the fourth element of claim 1 without providing any indication of the portions of Raivisto that disclose the claimed feature. Applicant argues that the lack of support in the rejection for the rejection's argument mirrors the lack of disclosure in Raivisto of the claimed feature.

Furthermore, the hypothetical combination of Vu and Raivisto apparently is attempting to argue, without explicitly saying so, that an analogy can be made between the proxy of the present invention and the mediator of Raivisto, but it does not explain how the prior art shows two communication sessions between a terminal/client and a mediator/gateway/proxy as claimed in the present invention.

In other words, the combination of Raivisto with Vu does not remedy the most prominent deficiency in Vu because the basic configuration of Raivisto is similar to Vu. In Raivisto, the mediator acts as an intermediary between two terminals; this configuration is analogous to the gateway acting as an intermediary between the host and the client in Vu or the proxy acting as an intermediary between the server and the client in the present invention. However, Raivisto does not disclose two communication sessions between a single terminal and the mediator, as would be necessary before Raivisto can begin to disclose the claimed features of the present invention concerning two secure communication sessions between a client and a proxy.

The motivational statement in the rejection fails to provide any argument for combining the teachings of the two prior art references, much less a convincing argument. The first portion of the motivational statement states:

Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Vu so that a first secure connection would have been made between a client and a proxy. A second connection would have been made between a client and a proxy that enables the proxy to act as a conduit to the server. Secret keys would have been established [sic] the proxy and the client and the proxy and the server.

This portion of the motivation statement merely echoes the claimed elements of the present application; there is no argument about any suggestion or motivating factor in the prior art as to why one would have performed these modifications. Since the

rejection merely echoes the claimed elements, the rejection clearly uses improper hindsight in employing the teachings of the present application against the claims in the present application.

5 The second portion of the motivational statement states:

10 It would have been obvious so to a person having ordinary skill in the art at the time the invention was made to have modified Vu by the teaching of Raivisto because the management of keys and other parameters needed for connection security is simple and secure. When applying this method, only a few security parameters need to be stored at mobile terminals. Another advantage of the method according to the invention in that mobile terminals using incompatible security algorithms and/or security layer protocols can communicate with each other with the connection security provided [column 3, lines 50-61].

15 The mentioning of the advantage of simple and secure management of keys and parameters is completely generic; this statement could have been used for numerous cryptographic systems. The mentioning of mobile terminals is also irrelevant; while it may be true, there is nothing specific about the use of mobile terminals that would have specifically motivated someone to construct a system as claimed in the present application. The motivational statement does not provide any nexus between the features of Vu and the features of Raivisto and why or how the integration of hypothetical features between the two systems could be accomplished to form the claimed features of the present application.

25 Examiner bears the burden of establishing a prima facie case of obviousness.

30 The examiner bears the burden of establishing a *prima facie* case of obviousness based on the prior art when rejecting claims under 35 U.S.C. § 103. *In re Fritch*, 972 F.2d 1260, 23 U.S.P.Q.2d 1780 (Fed. Cir. 1992). Only when a *prima facie* case of obviousness is established does the burden shift to the

applicant to produce evidence of nonobviousness. *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Rijckaert*, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). If the Patent Office does not produce a *prima facie* case of unpatentability, then without more the applicant is entitled to the grant of a patent. *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Grabiak*, 769 F.2d 729, 733, 226 U.S.P.Q. 870, 873 (Fed. Cir. 1985). In response to an assertion of obviousness by the Patent Office, the applicant may attack the Patent Office's *prima facie* determination as improperly made out, present objective evidence tending to support a conclusion of nonobviousness, or both. *In re Fritch*, 972 F.2d 1260, 1265, 23 U.S.P.Q.2d 1780, 1783 (Fed. Cir. 1992).

With respect to claims 1 and 6-9, Vu in view of Raivisto does not disclose the claimed invention nor provide any suggestion to motivate one having ordinary skill in the art to modify the prior art to reach the claimed invention. In fact, the rejection appears to disregard entire claim elements without justification. In general, the rejection does not point out the necessary teachings, suggestions, or incentives to reach the claimed invention. Hence, the rejection of claims 1 and 6-9 does not establish a *prima facie* case of obviousness based on the prior art. Therefore, the rejection of claims 1 and 6-9 under 35 U.S.C. § 103(a) has been shown to be insupportable, and this claim is patentable over the applied prior art. Applicant requests the withdrawal of the rejection.

V. Conclusion

It is respectfully urged that the present patent application is patentable, and Applicant kindly requests a Notice of Allowance.

For any other outstanding matters or issues, the examiner is urged to call or fax the below-listed telephone numbers to expedite the prosecution and examination of this application.

5 DATE: August 18, 2004

Respectfully submitted,



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